AMENDMENTS TO THE SPECIFICATION

On page 1, please insert a new paragraph, immediately following the heading "CROSS REFERENCE TO RELATED APPLICATIONS" and preceding the heading "FIELD OF THE INVENTION", as follows:

REFERENCE TO SEQUENCE LISTING SUBMITTED VIA EFS-WEB

The entire content of the following electronic submission of the sequence listing via the USPTO EFS-WEB server, as authorized and set forth in MPEP §1730 II.B.2(a)(C), is incorporated herein by reference in its entirety for all purposes. The sequence listing is identified on the electronically filed text file as follows:

File Name	Date of Creation	Size (bytes)
415852001100Seqlist.txt	November 26, 2007	12,258 bytes

On page 13, please replace the paragraph, beginning at line 6, with the following amended paragraph:

Figure 1 shows the amino acid sequence alignment of selected Jak Kinases (SEQ ID NOS: 10-13).

On page 62, please replace the paragraph, beginning at line 9, with the following amended paragraph:

The kinase domain of humanJAK1 was amplified from U937mRNA using the polymerase chain reaction with the following primers:

XHOI-J1 5'-CCG CTC GAG ACT GAA GTG GAC CCC ACA CAT-3' (SEQ ID NO: 1)

J1-KPNI 5'-CGG GGT ACC TTA TTT TAA AAG TGC TTC AAA-3' (SEQ ID NO: 2)

On page 63, please replace the paragraph, beginning at line 6, with the following amended paragraph:

The kinase domain of humanJAK2 was amplified from U937mRNA using the polymerase chain reaction with the following primers:

SALI-jk2 5'-ACG CGT CGA CGG TGC CTT TGA AGA CCG GGA T-3' (SEQ ID NO: 3)

jk2-NOTI 5'-ATA GTT TAG CGG CCG CTC AGA ATG AAG GTC ATT T-3' (SEQ ID NO: 4)

On page 63, please replace the paragraph, beginning at line 15, with the following amended paragraph:

[0100] The kinase domain of humanJAK3 was amplified from U937mRNA using the polymerase chain reaction with the following primers:

XHOI-J3 5'-CCG CTC GAG TAT GCC TGC CAA GAC CCC ACG-3' (SEQ ID NO: 5)

J3-KPNI 5'-CGG GGT ACC CTA TGA AAA GGA CAG GGA GTG-3' (SEQ ID NO: 6)

On page 63, please replace the paragraph, beginning at line 24, with the following amended paragraph:

The kinase domain of humanTYK2 was amplified from A549 mRNA using the polymerase chain reaction with the following primers:

HT2EK 5'-GGA GCA CTC GAG ATG GTA GCA CAC AAC CAG GTG-3' (SEQ ID NO: 7)

ITY2.2R 5'-GGA GCA GGA ATT CCG GCG CTG CCG GTC AAA TCT GG-3' (SEQ ID NO: 8)

On page 64, please replace the paragraph, beginning at line 11, with the following amended paragraph:

Kinase assays were performed in a 96 well capture-based ELISA assay or in 384 well Optiplates (Packard) using an Alphascreen Protein Tyrosine Kinase kit. In either ~~easse~~ case using approximately 1.5 μg of affinity purified PTK domain in the presence of 50mM HEPES, pH 7.5, 10mM $MgCl_2$, 150mM NaCl and 10μM-1mM ATP. The biotinylated substrate biotin-EGPWLEEEEEAYGWMDF-NH_2 (SEQ ID NO:9) (final concentration 5μM) was used as substrate. In the ELISA assay tyrosine phosphorylation was quantitated following transfer to an avidin coated ELISA plate using peroxidase-linked anti-phospho-tyrosine antibody PY20. In the Alphascreen assay, Alphascreen phosphotyrosine acceptor beads followed by streptavidin donor beads were added under subdued light. The ELISA plates were read on a BMG Fluorostar, the Alphascreen plates were read on a PackardFusion *Alpha*. Inhibitors were added to the assays fifteen minutes prior to the addition of ATP. Inhibitors were added in aqueous DMSO, with DMSO concentrations never exceeding 1%.